

WHAT IS CLAIMED IS:

1. An electronic device having a rotatable display module comprising:

a first housing having a sunken part, wherein the sunken part includes an inner front wall and an inner side wall;

5 a second housing having a front panel and a side panel, rotatably disposed in the sunken part between a first position and a second position;

a display module disposed on the front panel;

an elastic device for returning the second housing from the second position to the first position;

10 a protrusion slidably disposed on the side panel of the second housing; and

a guide track disposed on the inner side wall of the first housing, wherein the guide track includes a first fixer and a second fixer, and wherein when the second housing is rotated, the protrusion moves between the first
15 fixer and the second fixer along the guide track,

wherein when the protrusion is coupled to the first fixer, the second housing is located in the first position, and the display module faces a first direction, and wherein when the protrusion is coupled to the second fixer, the second housing is located in the second position, and the display

module faces a second direction.

2. The electronic device according to claim 1, wherein the elastic device is an axial elastic device, wherein the axial elastic device couples the side panel and the inner side wall for forming an axle of the second housing, wherein the axial elastic device provides a force for driving the second housing to rotate from the second position to the first position after the protrusion is decoupled to the second fixer.

3. The electronic device according to claim 1, wherein the electronic device further comprises:

a groove formed on the side panel of the second housing;

a slide having the protrusion and movably disposed in the groove; and

an elastic spring device, one end of which is fixed to the second housing, and the other end of which is connected to the slide.

4. The electronic device according to claim 3, wherein the electronic device further comprises:

an extending part vertically and internally disposed on the side panel, wherein the extending part has an aperture facing the front panel, and wherein the extending part is connected with the elastic spring device.

5. The electronic device according to claim 4, wherein the slide further

comprises:

a body slidably imbedded in the groove and coupled with the protrusion;

and

a stick, one end of which is connected to the body, and the other end of

5 which penetrates into the aperture.

6. The electronic device according to claim 1, wherein the guide track further comprises:

an arc track partly adjacent to the inner front wall of the first housing and having an indentation toward the front of the inner front wall;

10 an slope track disposed in the indentation of the arc track and having an upper end and a lower end, wherein the upper end of the slope track is below an upper end of the arc track and inclined to the inner front wall, and wherein the upper end of the arc track defines the first fixer; and

15 a bar track located between the slope track and the arc track, wherein one end of the bar track is connected with the lower end of the slope track, and the other end of the bar track defines the second fixer.

7. The electronic device according to claim 6, wherein the bar track further comprises another second fixer, wherein the another second fixer is located between the bottom end of the slope track and the second fixer.

8. The electronic device according to claim 1, wherein the second housing includes another side panel and the sunken part includes another inner side wall, and wherein the another side panel is rotatably coupled to the another inner side wall.

5 9. The electronic device according to claim 1, wherein the display module is a liquid crystal display module (LCM).

10 10. A pivot device for rotating a second housing in a sunken part, wherein the sunken part includes an inner front wall and an inner side wall, wherein the second housing includes a front panel and a side panel, wherein the pivot device comprises:

an elastic device for returning the second housing rotate from a second position to a first position;

a protrusion slidably disposed on the side panel; and

15 a guide track disposed on the inner side wall, wherein the guide track includes a first fixer and a second fixer, and wherein when the second housing is rotated, the protrusion moves between the first fixer and the second fixer along the guide track;

20 wherein when the protrusion is coupled to the first fixer, the second housing is located in the first position, and the front panel faces a first direction, and wherein when the protrusion is coupled to the second fixer,

the second housing is located in the second position, and the front panel faces a second direction.

11. The pivot device according to claim 10, wherein the elastic device is an axial elastic device, wherein the axial elastic device couples the side panel and the inner side wall for forming an axle for the second housing, wherein the axial elastic device provides a force for driving the second housing to rotate from the second position to the first position after the protrusion is decoupled to the second fixer.

12. The pivot device according to claim 10, wherein the pivot device further comprises:

a groove formed on the side panel;

a slide having the protrusion and movably disposed in the groove; and

an elastic spring device, one end of which is fixed to the second housing, and the other end of which is connected to the slide.

13. The pivot device according to claim 12, wherein the pivot device further comprises:

an extending part vertically disposed on the side panel, wherein the extending part has an aperture facing the front panel, and wherein the extending part is connected with the elastic spring device.

14. The pivot device according to claim 13, wherein the slide further comprises:

a body inserted in the groove and wherein the body is coupled with the protrusion; and

5 a stick, one end of which is connected to the body and the other end of which penetrates into the aperture.

15. The pivot device according to claim 10, wherein the guide track further comprises:

10 an arc track partly adjacent to the inner front wall and having an indentation toward the front of the inner front wall;

an slope track disposed in the indentation of the arc track and having an upper end and a lower end, wherein the upper end of the slope track is below the upper end of the arc track and inclined to the inner front wall, and wherein the upper end of the arc track defines the first fixer ; and

15 a bar track located between the slope track and the arc track, wherein one end of the bar track is connected with the lower end of the slope track, and the other end of the bar track defines the second fixer.

16. The pivot device according to claim 10, wherein the front panel comprises a display module.

17. An electronic device comprising:

a first housing having a sunken part, wherein the sunken part includes an inner front wall and an inner side wall;

a second housing having a front panel and a side panel, rotatably
5 disposed in the sunken part between a first position and a second position;

an elastic device for returning the second housing from the second position to the first position;

a protrusion slidably disposed on the inner side wall of the first housing;
and

10 a guide track disposed on the side panel of the second housing,
wherein the guide track includes a first fixer and a second fixer, and wherein
when the second housing is rotated, the protrusion moves between the first
fixer and the second fixer along the guide track;

wherein when the protrusion is coupled to the first fixer, the second
15 housing is located in the first position, and wherein when the protrusion is
coupled to the second fixer, the second housing is located in the second
position.

18. The electronic device according to claim 17, wherein the elastic device is an axial elastic device, wherein the axial elastic device couples the

side panel and the inner side wall for forming an axle of the second housing, wherein the axial elastic device provides a force for driving the second housing to rotate from the second position to the first position after the protrusion is decoupled to the second fixer.

5 19. The electronic device according to claim 17, wherein the electronic device further comprises:

a groove formed on the inner side wall of the first housing;

a slide having the protrusion and movably disposed in the groove; and

10 an elastic spring device, one end of which is fixed to the first housing, and the other end of which is connected to the slide.

20. The electronic device according to claim 17, wherein the guide track further comprises:

an arc track partly adjacent to the front panel of the second housing and having an indentation toward the front of the front panel;

15 an slope track disposed in the indentation of the arc track and having an upper end, wherein the upper end of the slope track is below an upper end of the arc track and inclined to the front panel, and wherein the upper end of the arc track defines the first fixer ; and

a bar track located between the slope track and the arc track, wherein

one end of the bar track is connected with the lower end of the slope track,
and the other end of the bar track defines the second fixer.

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